

above amendments and the following remarks that all of claims 1-13 are in condition for allowance.

In the Office Action, the Examiner has rejected claims 1-3 and 6-8 under 35 U.S.C. §103 as being unpatentable over Ahn in view of Turtle. Applicant respectfully traverses the rejection. Neither of the references cited by the Examiner is directed to a system for summarizing a document or data set, as is Applicant's invention. Ahn is titled "System, Method And Computer Program Product For Maintaining Group Index Tables And Document Index Tables For The Purpose Of Searching Through Individual Documents And Groups Of Documents." The Abstract and Summary of the Invention portion of Ahn further states that the invention operates by locating one or more hit entries in a group fixed table associated with a keyword in a search request. The invention extracts from the located hit entry hit information indicating the number of times the keyword appears in documents respectively associated with the located hit entries. No where in the specification, figures or claims of Ahn is there any suggestion that Ahn is directed to a data set summary system.

More particularly, Ahn describes a system and method for identifying, from a predetermined set of documents, one or more documents containing a keyword submitted in a search query. Ahn enables portions of text from the identified document(s) containing the keyword to be displayed, one at a time, for example by allowing a user to step through the identified portions, or in a second embodiment, by enabling the user to view a whole document or selected portions thereof

according to the frequency of occurrence of the keyword in that document.

From a user's perspective, Ahn operates as a conventional document search engine.

In properly combining two prior art documents to make an argument of obviousness against the presently claimed invention, there should be some suggestion or motivation to use a resultant combination of prior art features for the same purpose as in the presently claimed invention, that is, to make a customized summary of a given document. In the present case, neither Ahn nor Turtle offer any teaching or suggestion that their inventions are being used to generate a customized summary of a document. Indeed, as will be argued below, even if the references are combined Applicant's invention directed to a system for obtaining a customized summary document would not result.

The Examiner has erroneously presumed that Ahn's system, but for a section ranking feature, which is supposedly to be found in Turtle, is an example of a customized document summarizer, or at least that a skilled person would be motivated to use the particular combination of features for such a purpose having appreciated the teaching of Turtle.

However, there is no mention whatsoever by Ahn of summarizing the information content of a document. Ahn is simply concerned with identifying and displaying "hits" on the submitted keyword. The key features of Ahn's invention - the group and document index tables for a predetermined set of documents and a predetermined set of keywords - are directed to a method for identifying such "hits."

If Ahn had felt that his invention might be useful as a document summarizer, he might at least have offered some features to assist in the compilation of a customized summary of a document based upon such "hits," rather than just offering users one-by-one selection and display of "hit" portions of text.

Ahn does not even disclose the size or nature of a "portion" of text. The only clue to the size or nature of a portion comes from the tables of Figures 2 and 3 where "location in document" is designated by "L1 ", "L2", etc., suggesting that a "portion" may be simply a line of text. A line of text is not useful as a basis for compiling a document summary. A sentence would generally be the minimum ingredient. Ahn's silence on the size or nature of a "portion" reinforces the assertion that a reader would not find any teaching suggestive of document summarization in Ahn's patent.

Turtle discloses a system for identifying concepts expressed within a natural language search query and for determining the probability that documents within a document collection satisfy the query. In particular, and as the Examiner has noted, Turtle's method includes calculating for each document a probability that the document meets the overall search query based upon a measure of the frequency of occurrence of each search query concept in the document. On the basis of these probability measures, Turtle ranks the documents.

As with Ahn, Turtle makes no mention whatsoever of generating a summary of a given document. The output of Turtle's system is the display of, or a reference to a whole document. This is of no use in compiling a customized summary of that

document, and a skilled person would find no teaching in Turtle's patent on how to modify Ahn's system to generate a customized summary of that document, or vice versa.

The Examiner, in rejecting Claim 7 has erroneously applied features of Ahn against the claim elements of present Claim 7.

For the first step in Claim 7, that of receiving, as input, a data set to be summarized, the Examiner cites Ahn, col 3, lines 34-46. At this point, Ahn's system "receives a user search request containing a keyword and determines whether the search request is directed to searching an individual document or a group of documents." Nowhere in the passage cited by the Examiner does Ahn teach or suggest summarizing a data set.

For the second step of Claim 7, that of dividing the received data set into sections according to predetermined criteria, the Examiner cites several new passages, although it is clear that the Examiner has in mind for the "data set" a group of documents, either one or both of groups A and B of Ahn's Figure 1. Therefore, at the first step, Ahn's received search request must have indicated that a group of documents were to be searched rather than an individual document. Clearly then the first step of Ahn has nothing to do with "receiving a data set to be summarized" as in Applicant's invention.

The Examiner states that Ahn's teaching of "dividing a group of documents into the group's index table, col. 2, lines 41-48; col. 3, lines 61 to col. 4, lines 5; col. 4, lines 16-21" meets Applicant's claim 7 step of "dividing said data set into sections

according to predetermined criteria." We disagree. At these citations, Ahn is identifying searchable terms in the group index table that match the keyword in the earlier received search request, and hence determining the locations in documents of the group where the keyword occurs. The resultant "hits" are then displayed to the user. This feature of Ahn has absolutely no relation to Applicant's invention in which the data set is divided into sections according to predetermined criteria. As clearly stated in the present application at page 3, lines 6-8, "Data sets may be divided into sections according to sentences, paragraphs and other punctuation" or in "other formats such as pages and chapters and headings." Dividing a group of documents into a group index table of "hits" does not divide the data set into sections, such as sentences, paragraphs, chapters, etc. as disclosed in the present application.

For the third step of claim 7, that of "comparing data items in each said section against one or more target data items," the Examiner cites Ahn at col. 5, lines 1-24 (steps 608 to 612 of Figure 6). Following the dividing step above, a section arguably corresponds to a sub-group of documents in Ahn, but the Examiner does not identify what data items from such a sub-group of documents are being compared with something corresponding to a "target data item". The Examiner's cited reference relates to Ahn's second embodiment in which the group index table is replaced with a "group hits table." This is essentially the equivalent step to that cited with reference to the "dividing" step above, though for Ahn's second embodiment. The Examiner appears to be citing Ahn's process of comparing entries

in an table with a keyword, both as an example of a dividing step for dividing a document group into sub-groups, and as an example of a comparison step for comparing data items within those document subgroups with a target data item.

For the fifth step of claim 7, that of "compiling a customized summary of said data set by selecting one or more of said one or more sections according to their respective ranking value," the Examiner asserts that this is "inherent in the system since Ahn teaches the feature of presenting the hit information to a user, 616 of Figure 6; col. 5, lines 25-31." Once again the Examiner has strayed into Ahn's second embodiment. But more particularly, Ahn's displaying of hits enables the user to view portions (of undisclosed size and nature) of a selected document containing the keyword by stepping through them using e.g. the Page Down button on a keyboard. There is no attempt by Ahn's invention to perform any sort of compilation of portions of a document. "Compile" has a dictionary meaning suggesting "putting together", or "collecting." Ahn does not teach such a thing in displaying portions of text. Some form of compilation is the very least that might be expected of a summarizer. But from Ahn's teaching, compilation is something that users would need to perform for themselves in a separate step beyond what Ahn is presenting.

As the Examiner has indicated, Ahn's "data set" is a group of documents. Ahn does not disclose the form that a customized summary of a group of documents may take. Displaying portions of text from particular documents in the group would not be considered an obvious example of such a customized summary. It is quite clear

that Ahn does not have summarization in mind and it is quite clear that a skilled person reading Ahn's patent document would find no teaching relating to summarization, customized or otherwise, of a data set.

As discussed above, Turtle's "ranking" of documents simply does not teach or suggest ranking of sections for use in compiling a customized summary of a data set, as recited in Applicant's claim 7.

In view of the above, claim 7 and its respective dependent claims are believed to patentably define over the cited art taken either singly or in combination.

In addition, the same arguments apply equally well to independent claim 1 and its respective dependent claims. Claim 1 has been amended to recite a "compiling means" to emphasize the above disclosed distinctions over the cited art. Accordingly claim 1 and its respective dependent claims are also believed to patentably define over the cited art taken either singly or in combination.

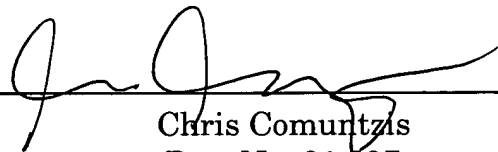
Finally, claim 9 has been amended to correct a typographical error and clearly indicate that it depends from dependent method claim 8.

Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-13, standing in the application, be allowed, and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a Telephonic Interview or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

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